

## PROSTATECTOMY

### SUMMARY RECOMMENDATIONS

---

#### Notes on PROSPECT recommendations

PROSPECT provides clinicians with supporting arguments for and against the use of various interventions in postoperative pain based on published evidence and expert opinion. Clinicians must make judgements based upon the clinical circumstances and local regulations. At all times, local prescribing information for the drugs referred to must be consulted.

#### Pain after open and laparoscopic or robotic radical prostatectomy and aims of the PROSPECT review

Pain remains an important issue after radical prostatectomy, resulting in discomfort and sometimes prolonged hospital stay ([Tan 2015](#)). Adequate pain management is needed to optimise postoperative recovery ([Joshi 2014](#)).

Patients undergoing open radical prostatectomy typically experience moderate dynamic pain in the immediate postoperative days ([d'Alonzo 2009](#)). Robot-assisted and laparoscopic surgery is less painful than open prostatectomy, although trocar ports may be a source of parietal pain after robot surgery ([d'Alonzo 2009](#); [Woldu 2014](#)). Postoperative analgesic protocols should reflect these different pain profiles and the specific evidence identified in the literature.

The aim of this review was to update the recommendations for optimal pain management after open and laparoscopic or robotic prostatectomy.

PROSPECT recommendations for radical prostatectomy, based on a systematic literature review, were initially published in 2015 ([Joshi 2015](#)), which updated the literature and recommendations made on the website in 2012 (Archive: [Radical prostatectomy 2012](#)). However, several new analgesic regimens, particularly regional analgesic techniques, have since been introduced and robot surgery has been developed on a larger scale, so an update to the systematic review was warranted.

The recommendations for the current review have been built on those of the previous review, supported by additional information from the more recent studies.

The unique PROSPECT methodology is available at <https://esraeurope.org/prospect-methodology/>.

## Summary recommendations

Recommended: Pre- and intra-operative interventions	
<ul style="list-style-type: none"> <li>• ‘Pre-operative’ refers to interventions applied before surgical incision and ‘intra-operative’ refers to interventions applied after incision and before wound closure</li> <li>• Analgesics should be administered at the appropriate time (pre- or intra-operatively) to provide sufficient analgesia in the early recovery period</li> </ul>	
<b>Paracetamol, NSAIDs, COX-2-selective inhibitors</b>	<p>Systemic analgesia should include paracetamol and selective or non-selective NSAIDs administered preoperatively or intraoperatively and continued postoperatively</p> <ul style="list-style-type: none"> <li>• NSAIDs and COX-2-selective inhibitors lowered postoperative pain scores and opioid use (<a href="#">Dirkmann 2015</a>; <a href="#">Mazaris 2008</a>; <a href="#">Bilgin 2011</a>; <a href="#">Chelly 2011</a>)</li> <li>• Paracetamol is recommended despite limited procedure-specific evidence, based on previous recommendations (<a href="#">Joshi 2015</a>)</li> </ul>
<b>Continuous IV lidocaine</b>	<p>Continuous IV lidocaine is recommended during open surgery</p> <ul style="list-style-type: none"> <li>• Its use contraindicates the simultaneous use of infiltration with local anaesthetics (<a href="#">Foo 2021</a>)</li> <li>• The duration of lidocaine infusion should be limited to the intraoperative and immediate postoperative periods for safety reasons</li> <li>• Continuous IV lidocaine reduced postoperative pain scores during open surgery (<a href="#">Groudine 1998</a>; <a href="#">Weinberg 2016</a>)</li> </ul>
<b>Local wound infiltration</b>	<p>Local wound infiltration should be used routinely for open surgery before other regional analgesia blocks, in the absence of IV lidocaine use</p> <ul style="list-style-type: none"> <li>• Local wound infiltration showed positive results in open surgery (<a href="#">Bilgin 2011</a>; <a href="#">Kristensen 2013</a>; <a href="#">Tauzin-Fin 2009</a>; <a href="#">Lee 2011</a>)</li> </ul>
<b>TAP block</b>	<p>TAP block is recommended as the first choice for laparoscopic/robotic radical prostatectomy</p> <ul style="list-style-type: none"> <li>• Bilateral TAP block performed at the end of surgery lowered pain scores in robot-assisted procedures (<a href="#">Dal Moro 2019</a>; <a href="#">Cacciamani 2019</a>; <a href="#">Taninishi 2020</a>), but results were conflicting for open procedures</li> </ul>

COX, cyclooxygenase; IV, intravenous; NSAIDs, non-steroidal anti-inflammatory drugs; TAP, transversus abdominis plane.

### Recommended: Postoperative interventions

- ‘Postoperative’ refers to interventions applied at or after wound closure
- Analgesics should be administered at the appropriate time (pre- or intra-operatively) to provide sufficient analgesia in the early recovery period

<b>Paracetamol, NSAIDs, COX-2-selective inhibitors</b>	Systemic analgesia should include paracetamol and selective or non-selective NSAIDs administered preoperatively or intraoperatively and continued postoperatively
<b>Opioid</b>	Opioids should be used as rescue analgesics in the postoperative period

COX, cyclooxygenase; NSAIDs, non-steroidal anti-inflammatory drugs.

## Interventions that are NOT recommended

Analgesic interventions that are not recommended for pain management in patients undergoing radical prostatectomy.

Intervention	Reason for not recommending
Gabapentin	Limited procedure-specific evidence/side effects
Dexmedetomidine	Lack of procedure-specific evidence
Intravesical local anaesthetics	Lack of procedure-specific evidence
Intrathecal opioid	Not recommended due to the risk of adverse effects
Epidural	Unfavourable benefit/risk balance
Epidural-caudal block	Lack of procedure-specific evidence
TAP block	Not recommended for open
Rectus sheath block	Lack of procedure-specific evidence
Electro-acupuncture	Limited procedure-specific evidence
Magnesium sulphate wound infiltration/intravenous	Limited procedure-specific evidence
Penile block	Lack of procedure-specific evidence
Valveless trocar	Limited procedure-specific evidence
Transverse vs longitudinal incision	Lack of procedure-specific evidence
Intravesical installation ropivacaine	Lack of procedure-specific evidence
Suprapubic vs urethral catheter	Lack of procedure-specific evidence
Urethral catheter vs suprapubic and urethral catheter	Lack of procedure-specific evidence
Early catheter removal	Limited procedure-specific evidence
CO <sub>2</sub> warmed and humidified	Lack of procedure-specific evidence
Anaesthetic techniques	No specific recommendations for anaesthetic technique

TAP, transversus abdominis plane.

## Overall PROSPECT recommendations

### Overall recommendations for peri-operative pain management in patients undergoing radical prostatectomy

<b>Paracetamol</b>	Recommended despite limited procedure-specific evidence (Grade B)
<b>Systemic lidocaine</b>	Intraoperative continuous intravenous infusion of lidocaine is recommended for open surgery (Grade B)
<b>NSAIDs or COX-2-selective inhibitors</b>	Recommended provided there are no contra-indications (Grade A)
<b>TAP block</b>	Recommended for laparoscopic/robotic procedures (Grade A)
<b>Wound infiltration</b>	Recommended for open surgery (Grade B)

COX, cyclooxygenase; NSAID, non-steroidal anti-inflammatory drug; TAP, transversus abdominis plane.

### PROSPECT publication

#### PROSPECT guidelines update for evidence-based pain management after prostatectomy for cancer.

Lemoine A, Witdouck A, Beloeil H, Bonnet F; PROSPECT Working Group Of The European Society Of Regional Anaesthesia And Pain Therapy (ESRA).

[Anasth Crit Care Pain Med 2021;40\(4\):100922. doi: 10.1016/j.accpm.2021.100922. Epub 2021 Jun 29.](https://doi.org/10.1016/j.accpm.2021.100922)